

FIG. 1

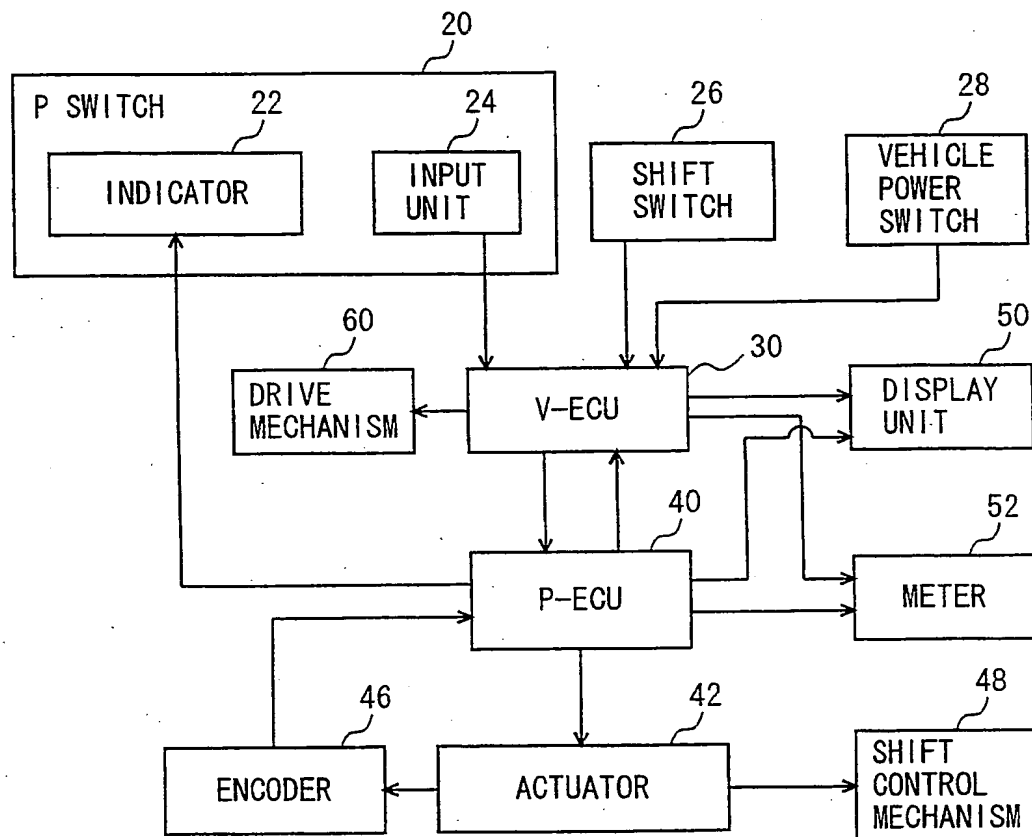
10

FIG. 2

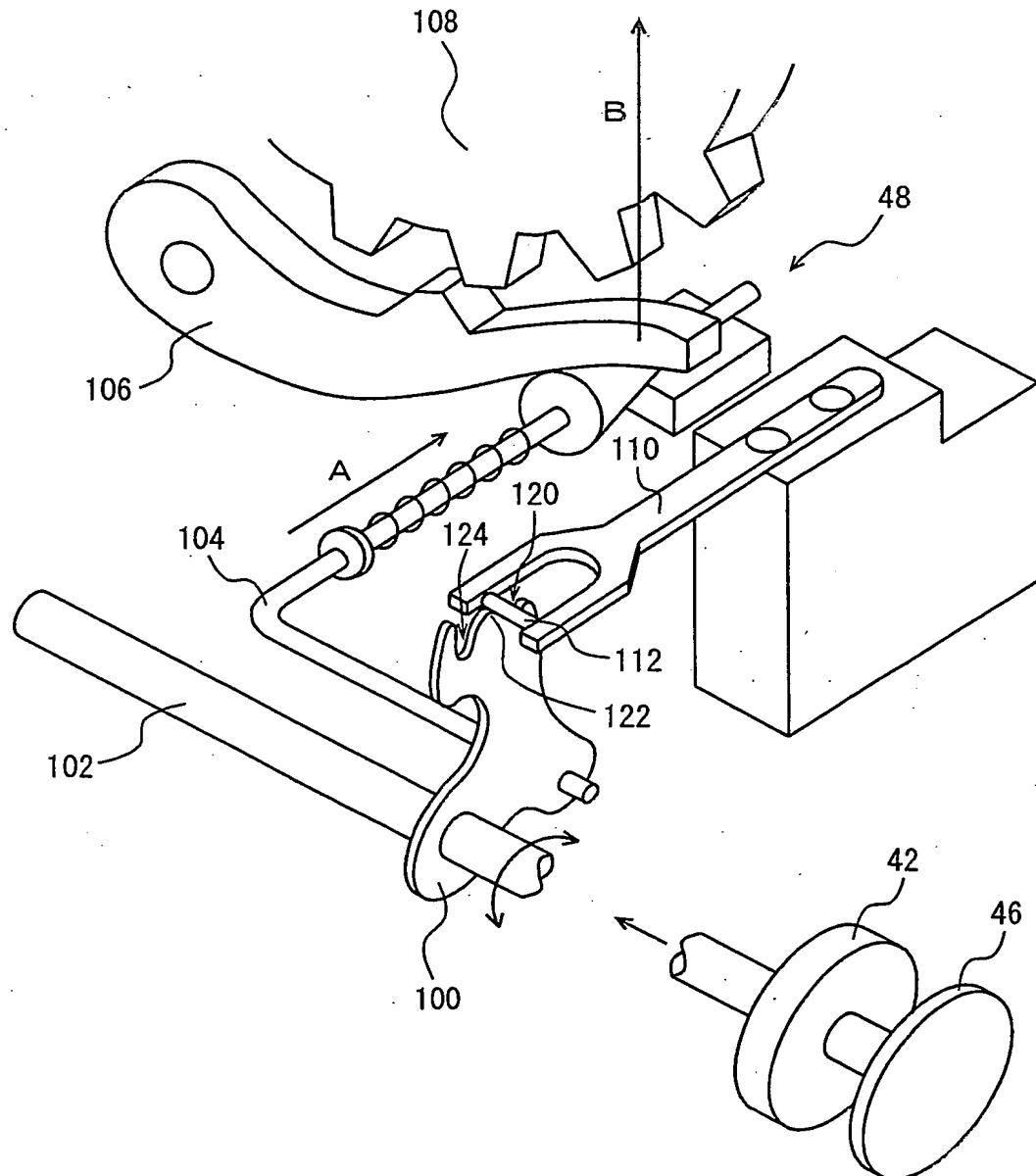


FIG. 3

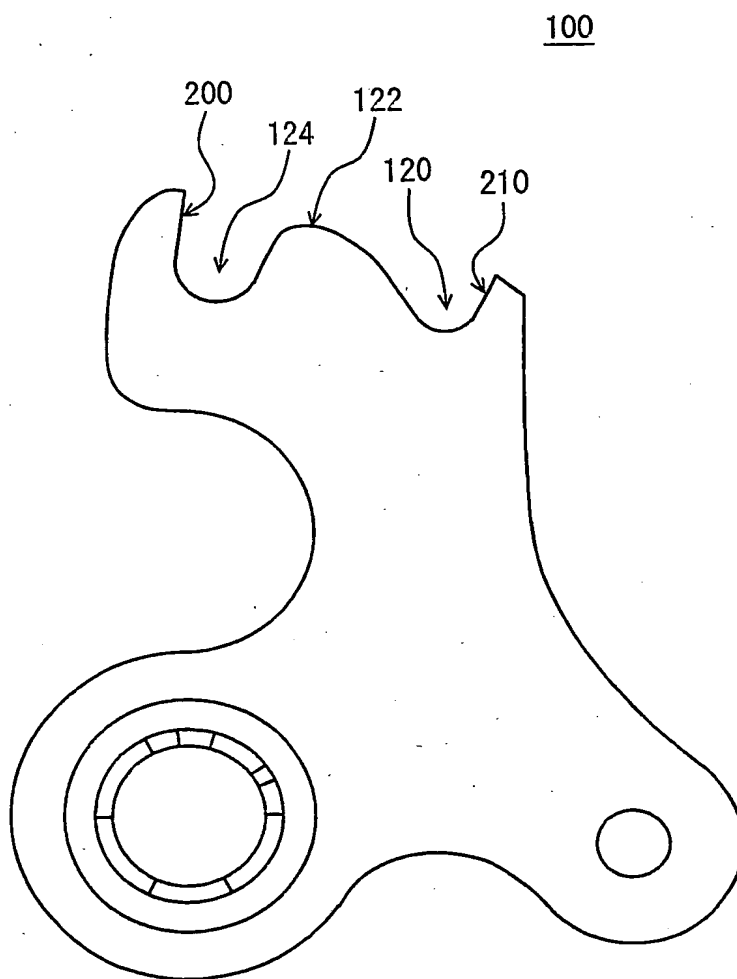


FIG. 4

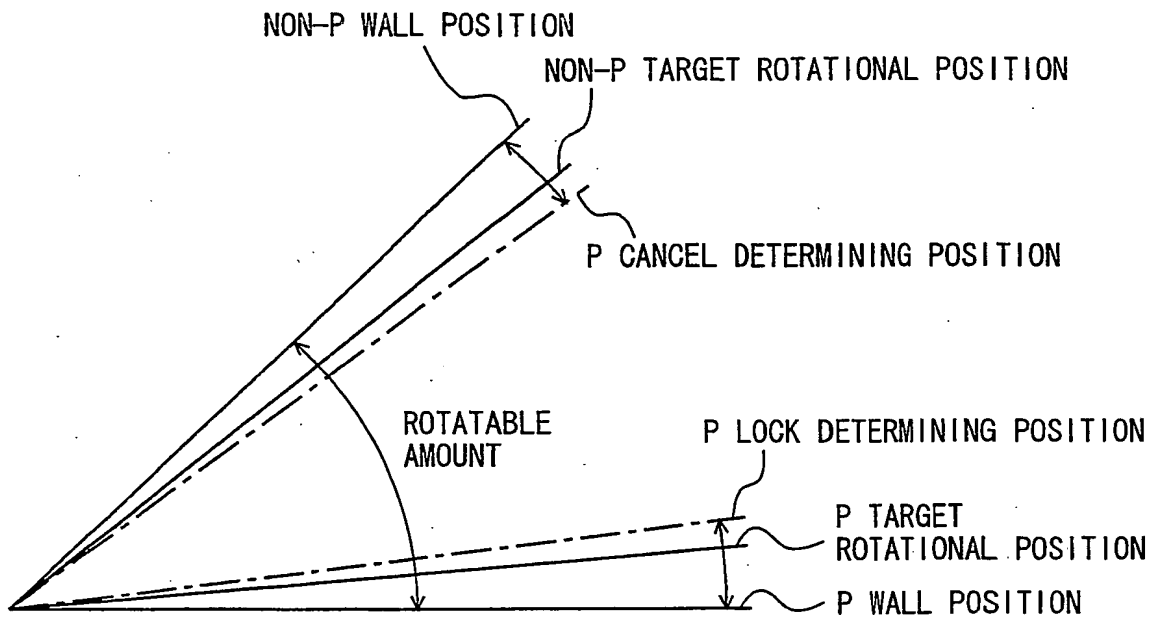


FIG. 5A

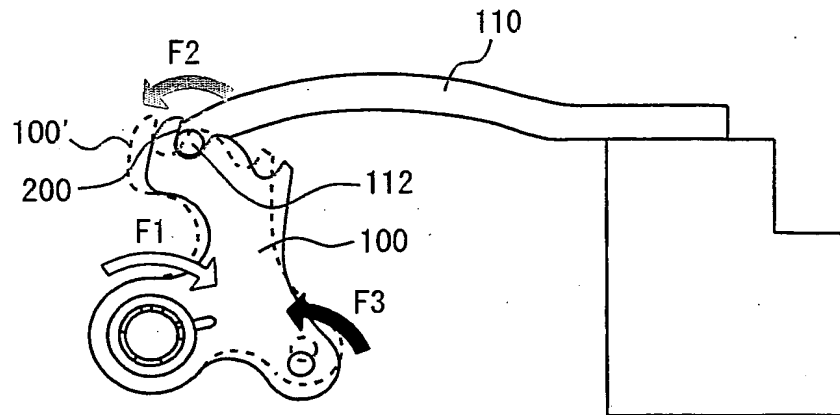


FIG. 5B

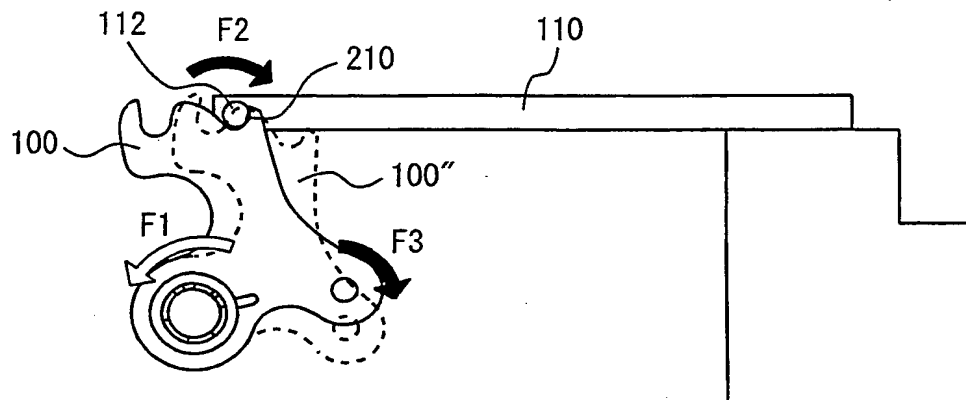


FIG. 6

PRECEDING TRIP			WALL POSITION	
SHIFT RANGE	ACTUAL ROTATABLE AMOUNT	ECU INSTRUCTION	P WALL POSITION	NON-P WALL POSITION
P RANGE	DETECTED		DETECT	NOT DETECT
	UNKNOWN		DETECT	DETECT
NON-P RANGE	DETECTED		NOT DETECT	DETECT
	UNKNOWN		DETECT	DETECT
UNKNOWN		P RANGE	DETECT	DETECT
		NON-P RANGE	DETECT	DETECT

FIG. 7

DETECTION OF WALL POSITION		ACTUAL ROTATABLE AMOUNT	METHOD OF CALCULATING TARGET ROTATIONAL POSITION	
P WALL POSITION	NON-P WALL POSITION		P TARGET ROTATIONAL POSITION	NON-P TARGET ROTATIONAL POSITION
DETECTED	DETECTED	DETECTED	P WALL POSITION + MARGIN	NON-P WALL POSITION - MARGIN
DETECTED	UNKNOWN	DETECTED	P WALL POSITION + MARGIN	P WALL POSITION + ACTUAL ROTATABLE AMOUNT - MARGIN
		UNKNOWN	P WALL POSITION + MARGIN	P WALL POSITION + DESIGNED ROTATABLE AMOUNT
UNKNOWN	DETECTED	DETECTED	NON-P WALL POSITION - ACTUAL ROTATABLE AMOUNT + MARGIN	NON-P WALL POSITION - MARGIN
		UNKNOWN	NON-P WALL POSITION - DESIGNED ROTATABLE AMOUNT	NON-P WALL POSITION - MARGIN

FIG. 8

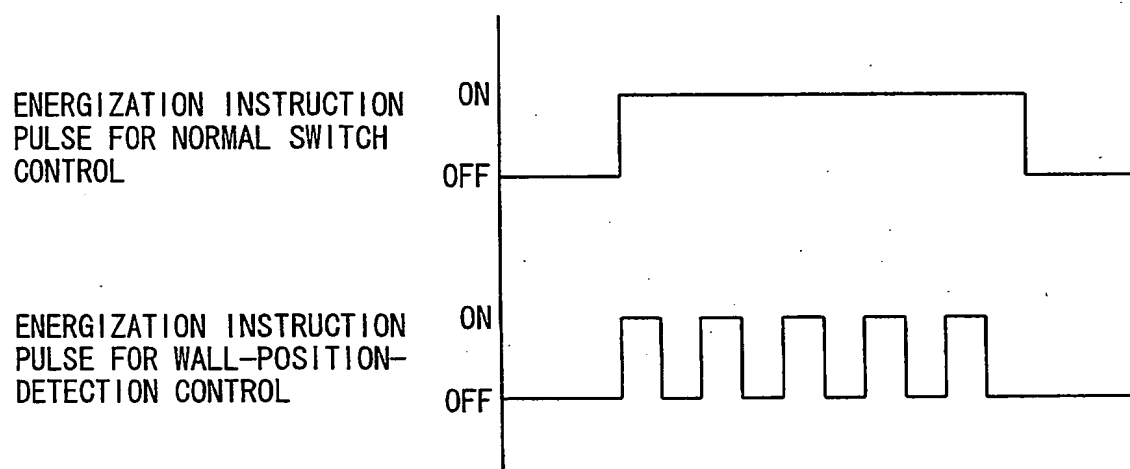


FIG. 9

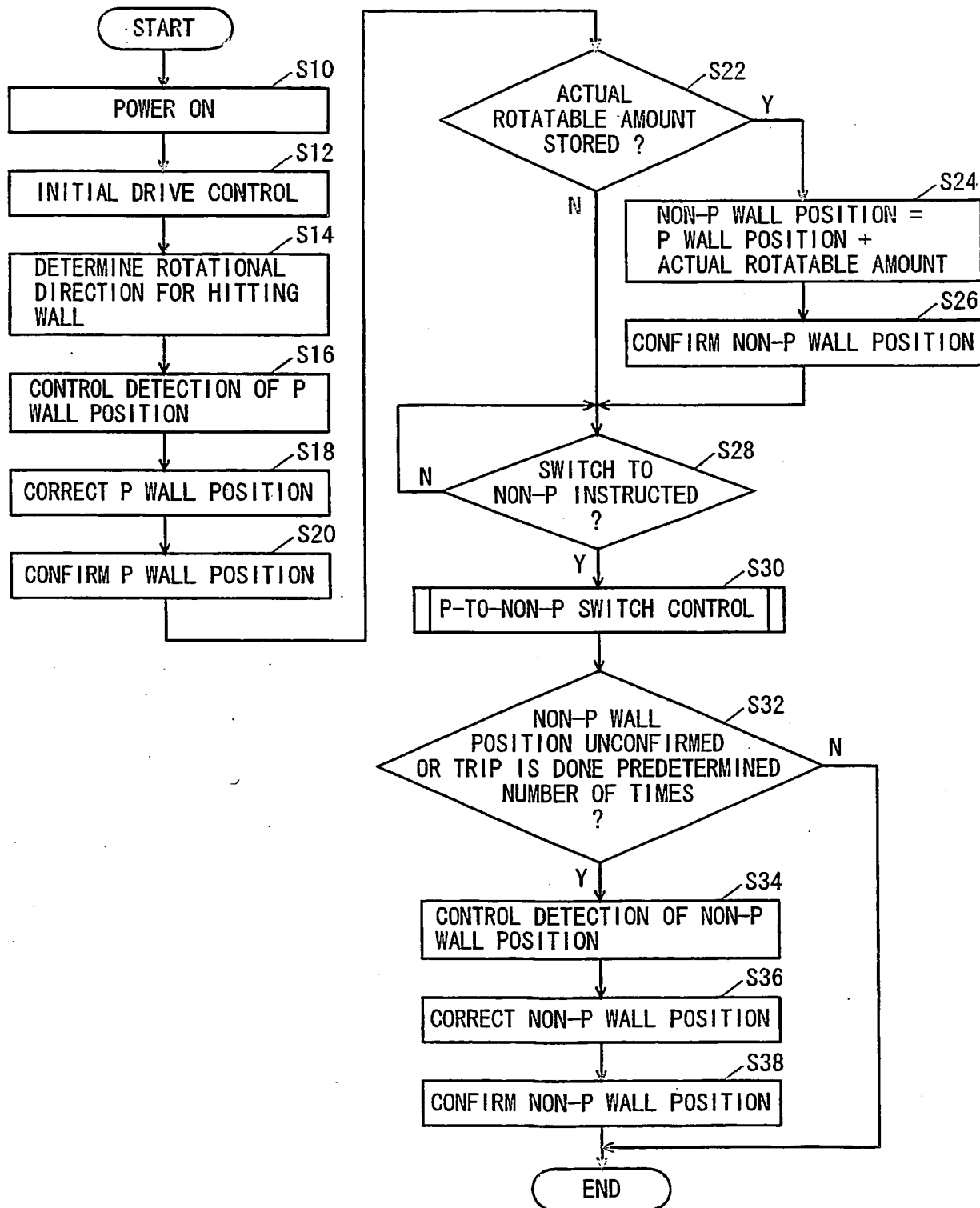


FIG. 10

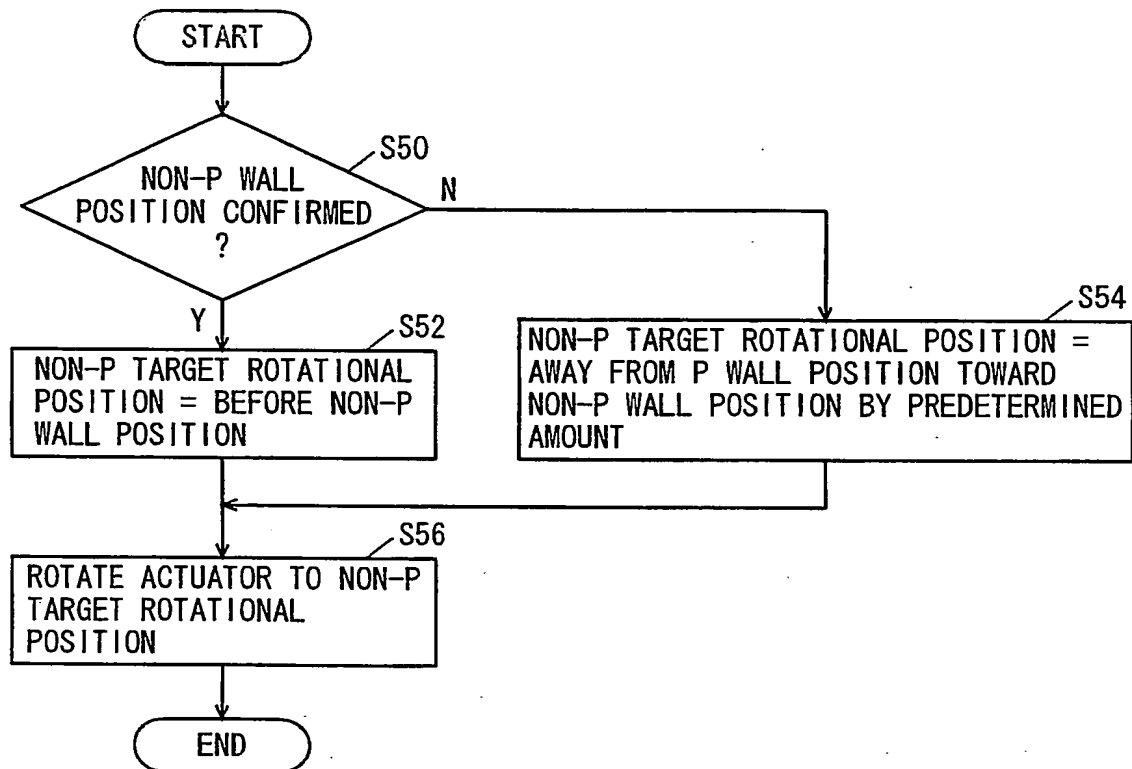


FIG. 11

HITTING OF ROLLER INITIALLY IN NON-P AGAINST P WALL

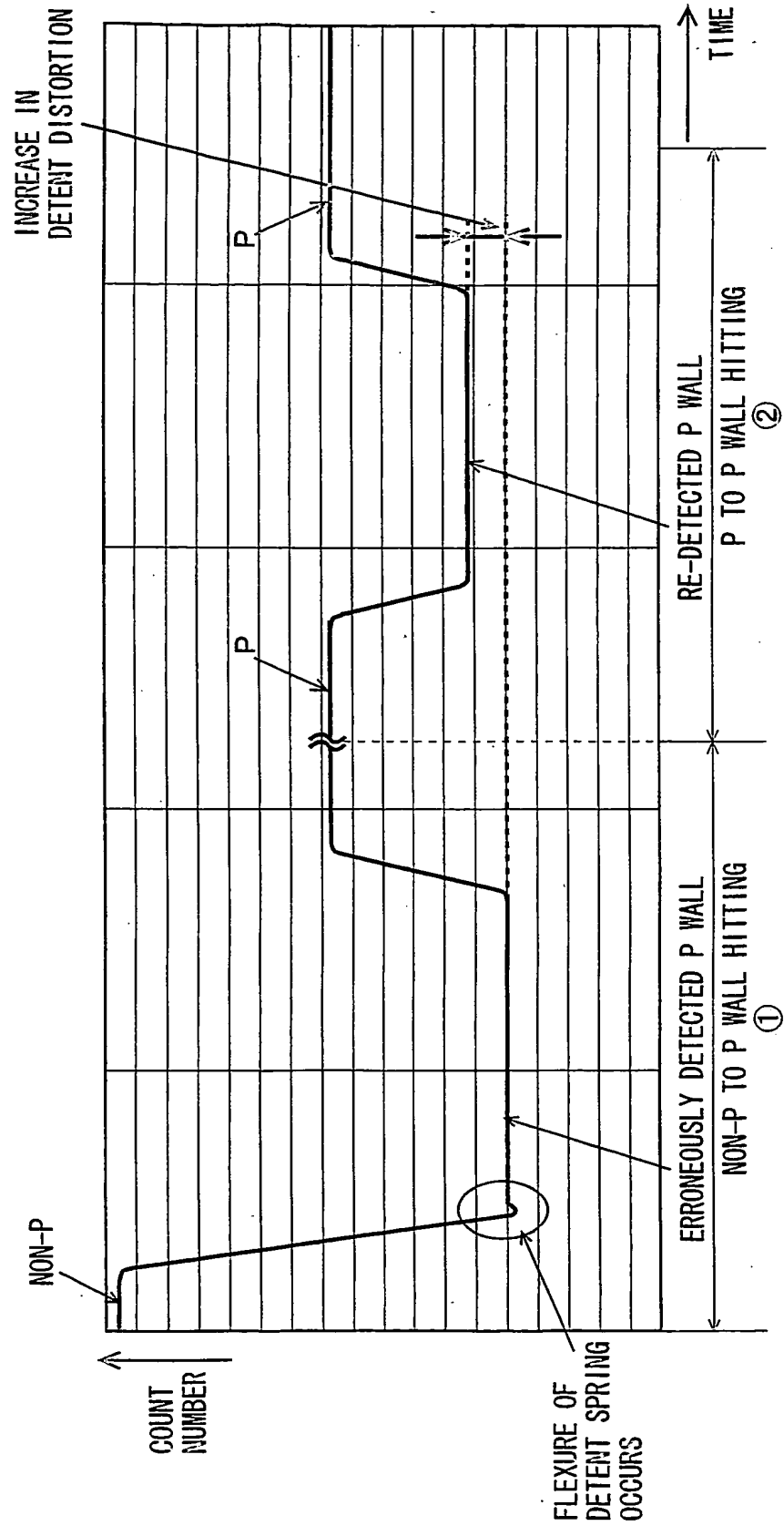


FIG. 12A

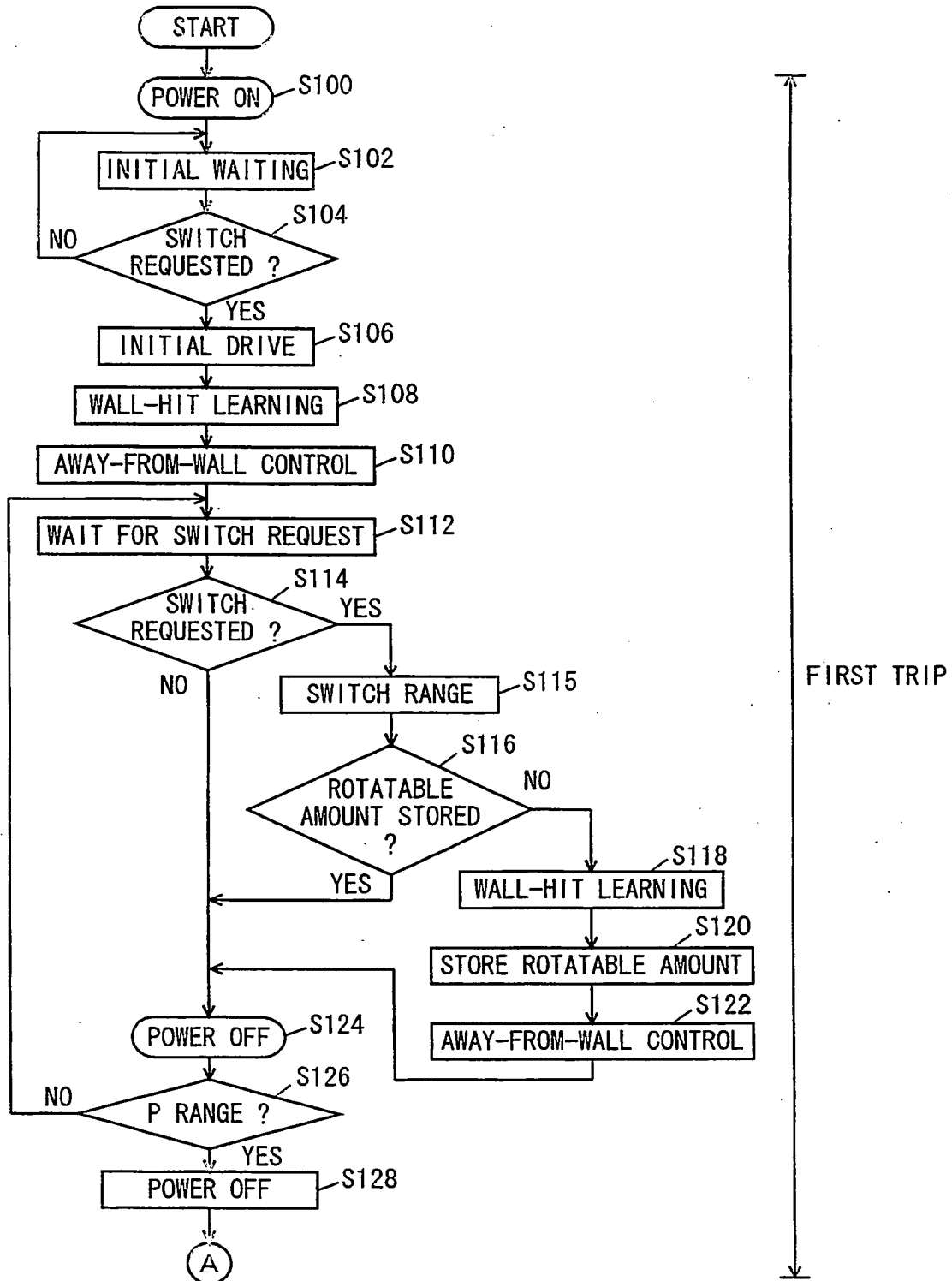
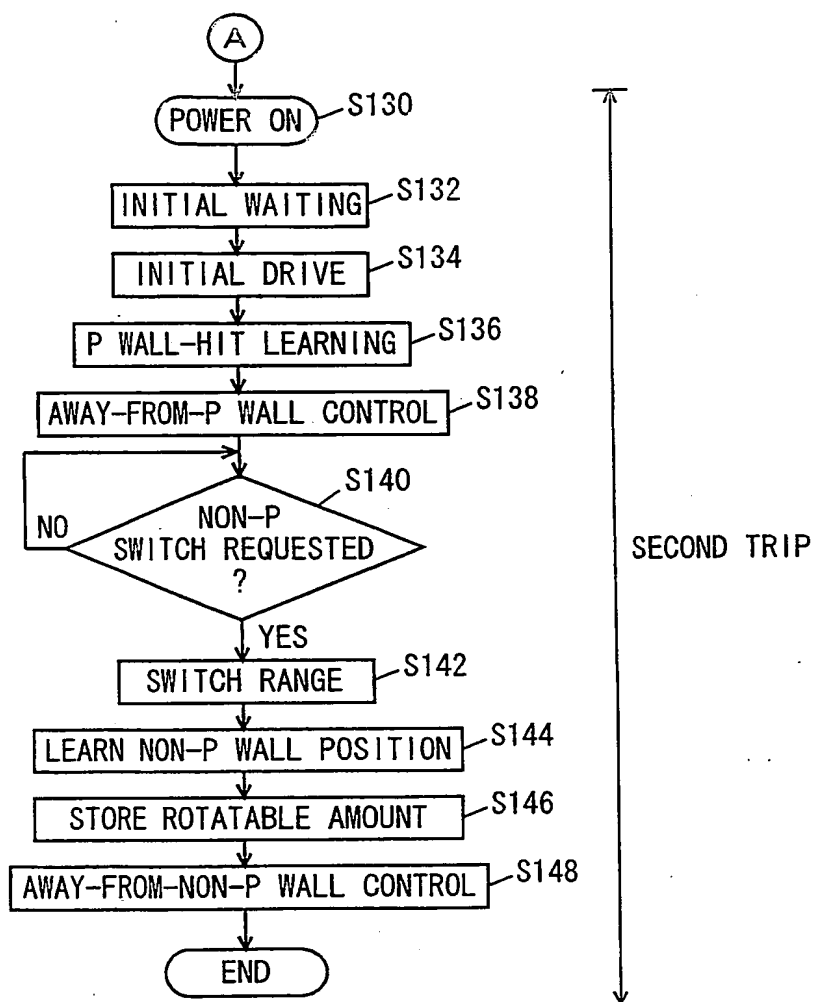


FIG. 12B



Ⓢ : INSTRUCTION FROM USER
 Ⓢ : VALUE DETERMINED BY ECU (VEHICLE SPEED CONSIDERED)

FIG. 13A

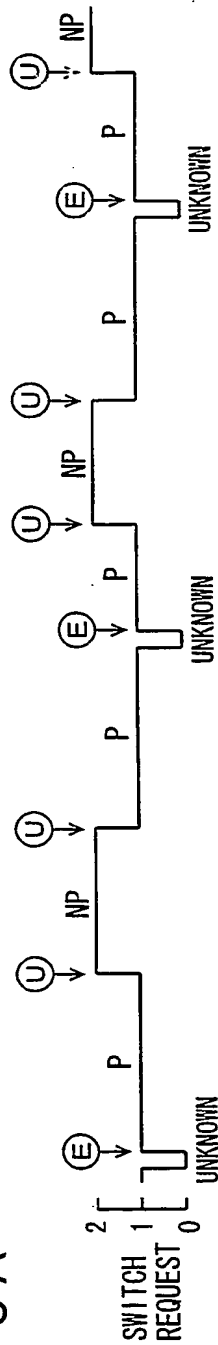


FIG. 13B

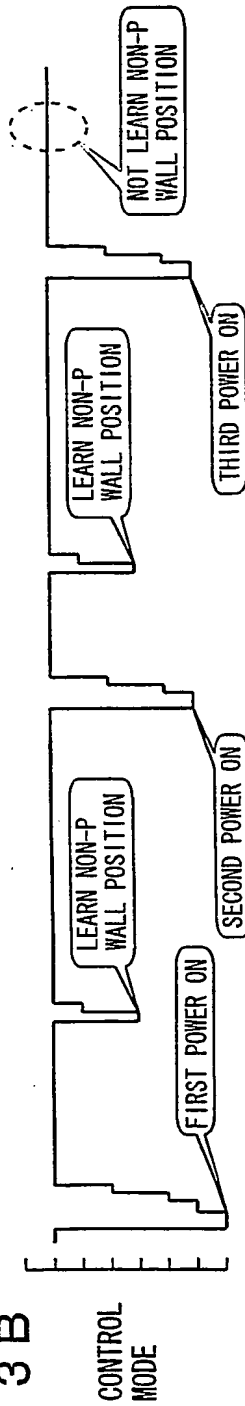


FIG. 13C

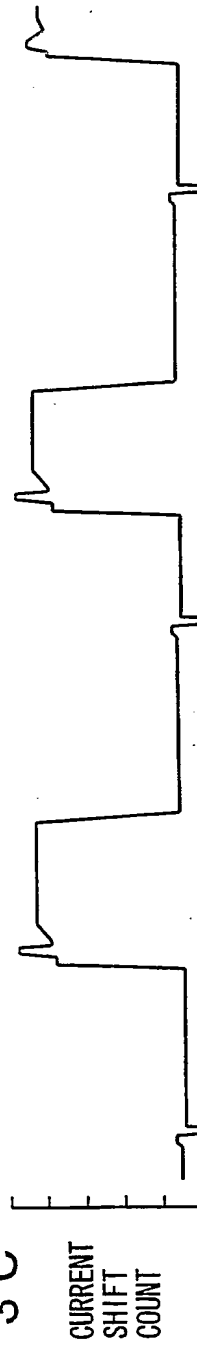


FIG. 13D

